

Stop 10. Summer stress in Creeping Bentgrass and Annual Bluegrass Putting Greens 2011

Dr. J.M. Vargas, Jr., Nancy Dykema, and Ron Detweiller

Summer Stress Syndrome has been associated with thinning and dying of turf during the warm summer months when turf goes under stress. It is especially problematic on low cut turf growing in poor environments. This includes greens growing in shaded areas or where there is limited air movement. Fungicides applied alone and in combination with other products on a preventive basis have been shown to prevent this decline from occurring. These products not only manage disease problems, but also create a more dense appearance and better color.

This summer has been highly stressful for turfgrass with plenty of hot, humid weather along with saturating rains. Under such warm conditions, several diseases (dollar spot, brown patch, anthracnose) have appeared in the study this year. Differences in turfgrass density and color can be seen among treatments.

2011 Summer Bentgrass Decline

Trt No.	Treatment Name	Rate per 1000 ft2	Rate Unit	Application Interval
1	Untreated Control			
2	Daconil Ultrex	3.25	oz/1000 ft2	14 days
2	Signature	4	oz/1000 ft2	14 days
3	SA-0010216	5	fl oz/1000 ft2	14 days
4	SA-0010217	5	fl oz/1000 ft2	14 days
5	SA-0011218	5	fl oz/1000 ft2	14 days
6	SA-0010219	5	fl oz/1000 ft2	14 days
7	SA-0010220	5	fl oz/1000 ft2	14 days
8	SA-0010221	5	fl oz/1000 ft2	14 days
9	SA-0010222	5	fl oz/1000 ft2	14 days
10	SA-0010214	3.6	fl oz/1000 ft2	14 days
11	SA-0010214	1.86	fl oz/1000 ft2	7 days
12	SA-0011501	4.25	oz/1000 ft2	14 days
13	SA-0010228	5	fl oz/1000 ft2	14 days
14	Floratine Program:			14 days
14	FP 747	8	fl oz/100 gal	14 days
14	Astron	2	fl oz/1000 ft2	14 days
14	Echo 6F ETQ	3.67	fl oz/1000 ft2	14 days
14	Knife Plus	2	fl oz/1000 ft2	14 days
14	PK Fight	3.25	fl oz/1000 ft2	14 days
14	Power 12-6-0	10	fl oz/1000 ft2	14 days
14	Protesyn	4	fl oz/1000 ft2	14 days
15	QP Fosetyl-Al	4	oz/1000 ft2	14 days
16	Foursome	0.4	fl oz/1000 ft2	14 days
17	QP Fosetyl-Al	4	oz/1000 ft2	14 days
17	Foursome	0.4	fl oz/1000 ft2	14 days
18	QP Fosetyl-Al	4	oz/1000 ft2	14 days
18	Foursome	0.4	fl oz/1000 ft2	14 days
18	QP IPRO 2 SE	4	fl oz/1000 ft2	14 days
19	QP Fosetyl-Al	4	oz/1000 ft2	14 days
19	Foursome	0.4	fl oz/1000 ft2	14 days
19	QP Chlorothalonil DF	3.2	oz/1000 ft2	14 days
20	Blossom Springs Spray	0.25	fl oz/1000 ft2	14 days
20	Urea	0.03	lb N/1000 ft2	14 days
21	Blossom Springs Solid	2	lbs/1000 ft2	14 days
21	Urea	0.03	lb N/1000 ft2	14 days
22	Blossom Springs Spray	0.25	fl oz/1000 ft2	14 days
22	Blossom Springs Solid	2	lbs/1000 ft2	14 days
22	Urea	0.03	lb N/1000 ft2	14 days
23	Blossom Springs Spray	0.25	fl oz/1000 ft2	14 days
23	Blossom Springs Solid	2	lbs/1000 ft2	14 days
23	Chlorothalonil	3.2	oz/1000 ft2	14 days
24	Chlorothalonil	3.2	oz/1000 ft2	14 days

Note: Treatments not listed in the program booklet are proprietary.

2011 Summer Bentgrass Decline

	A	B	C	D	E	F
1	1	23	24	10	28	3
2	2	22	25	7	21	16
3	3	21	26	22	9	23
4	4	20	27	15	1	11
5	5	19	28	x	30	29
6	6	x	31	x	35	x
7	7	x	32	x	33	x
8	8	x	33	x	31	x
9	9	x	34	x	32	x
10	10	x	35	x	34	x
11	11	18	29	19	8	5
12	12	17	30	13	27	14
13	13	16	24	26	6	18
14	14	15	4	12	25	x
15	18	10		2	17	x
16	3	27	23	20	7	18
17	22	25	13	17	11	26
18	17	5	20	30	23	3
19	8	18	19	9	16	29
20	14	30	7	25	28	6
21	16	2	26	12	1	22
22	21	24	15	14	8	15
23	6	12	9	5	19	21
24	34	x	33	x	27	10
25	29	4	1	4	x	32
26	11	28	2	20	24	13
27	x	32	x	31	x	34
28	x	31	x	34	x	33
29	x	35	x	x	x	35

2011 Summer Annual Bluegrass Decline

Trt. No.	Treatment Name	Rate	Rate Unit	Application Interval
1	Untreated Control			
2	Gary's Green Ultra	12	fl oz/1000 ft2	14 days
2	NutraGreen	4	fl oz/1000 ft2	14 days
2	PK Plus	6	fl oz/1000 ft2	14 days
3	Gary's Green Ultra	12	fl oz/1000 ft2	14 days
3	NutraGreen	4	fl oz/1000 ft2	14 days
3	PK Plus	6	fl oz/1000 ft2	14 days
3	Daconil Ultrex	1.8	oz/1000 ft2	14 days
4	Daconil Ultrex	1.8	oz/1000 ft2	14 days
5	SA-0010216	5	fl oz/1000 ft2	14 days
6	SA-0010217	5	fl oz/1000 ft2	14 days
7	SA-0011218	5	fl oz/1000 ft2	14 days
8	SA-0010219	5	fl oz/1000 ft2	14 days
9	SA-0010220	5	fl oz/1000 ft2	14 days
10	SA-0010221	5	fl oz/1000 ft2	14 days
11	SA-0010222	5	fl oz/1000 ft2	14 days
12	SA-0010214	3.6	fl oz/1000 ft2	14 days
13	SA-0010214	1.86	fl oz/1000 ft2	7 days
14	SA-0011501	4.25	oz/1000 ft2	14 days
15	SA-0010228	5	fl oz/1000 ft2	14 days
16	Daconil Ultrex	3.2	oz/1000 ft2	14 days
16	Signature	4	oz/1000 ft2	14 days
17	Proprietary			
18	Floratine Program 1:			
18	FP 747	8	fl oz/100 gal	7 days
18	Astron	1.5	fl oz/1000 ft2	7 days
18	Echo 6F ETQ	2	fl oz/1000 ft2	7 days
18	Groom	0.1	fl oz/1000 ft2	7 days
18	Knife Plus	1.5	fl oz/1000 ft2	7 days
18	PK Fight	2.5	fl oz/1000 ft2	7 days
18	Power 12-6-0	10	fl oz/1000 ft2	7 days
18	Protesyn	3	fl oz/1000 ft2	7 days
19	Floratine Program 2:			
19A	FP 747	8	fl oz/100 gal	7 days ALT
19A	Astron	2	fl oz/1000 ft2	7 days ALT
19A	Echo 6F ETQ	2	fl oz/1000 ft2	7 days ALT
19A	Groom	0.1	fl oz/1000 ft2	7 days ALT
19A	Power 23-0-0	6	fl oz/1000 ft2	7 days ALT
19A	Protesyn	4	fl oz/1000 ft2	7 days ALT
19B	FP 747	8	fl oz/100 gal	7 days ALT
19B	Echo 6F ETQ	2	fl oz/1000 ft2	7 days ALT
19B	Groom	0.1	fl oz/1000 ft2	7 days ALT
19B	Knife Plus	2	fl oz/1000 ft2	7 days ALT
19B	Power 12-6-0	11	fl oz/1000 ft2	7 days ALT
20	Signature	4	oz/1000 ft2	14 days
20	Chipco 26GT	4	fl oz/1000 ft2	14 days

Note: Treatments not listed in the program booklet are proprietary.

2011 Summer Annual Bluegrass Decline on Fairway

NORTH

	A	B	C	D	E	F	G	H
1							20	2
2							x	19
3							4	7
4							x	14
5							5	9
6							x	17
7							10	1
8							x	15
9							x	6
10							x	12
11							x	3
12							16	8
13							x	x
14							18	13
15							11	x
16							14	19
17							16	5
18							x	12
19	1	2	3	4	5	x	15	3
20	x	9	8	7	6	x	7	8
21	10	11	12	13	14	15	x	1
22	19	18	17	16	x	x	13	10
23	x	20	x	x	x	x	9	4
24	x		x	x	x	x	18	17
25				4	x	8	2	6
26		5	20	10	16	19	20	11
27	x	12	2	14	6	15		
28	X	7		1	18	13		
29	X	x	11	17	9	3		

2011 Summer Annual Bluegrass Decline on Putting Green

	A	B	C	D	E	F	G	H	I
1	1	x	x	x	4	x	18	10	15
2	x	2	x	3	x	13	x	12	x
3	x	7	x	6	5	14	9	8	2
4	x	x	9	x	x	x	x	11	7
5	10	11	x	12	13	3	8	4	19
6	x	16	15	x	14	1	17	5	6
7	x	17	18	x	12	16	x	20	x
8	19	20	x	x	19	6	11	13	12
9	1	7	9	17	x	19	17	10	3
10	x	x	x	x	18	5	x	7	16
11	4	10	x	6	5	2	x	x	8
12	16	x	3	15	x	x	18	x	20
13	x	8	20	2	14	15	1	x	4
14	x	11	x	13	x	9	x	x	14